

CITY OF CARLSBAD

TRAFFIC SAFETY COMMISSION

STAFF REPORT

COMMISSION MEETING OF: January 9, 2017

ITEM NO. 6B.1

LOCATION: La Costa Avenue Traffic Calming/Complete Streets Update

INITIATED BY: Traffic & Mobility Manager

STAFF RECOMMENDATION: Information Only

BACKGROUND:

In recent years, the City of Carlsbad has been taking steps to promote complete and livable streets. This effort began with Envision Carlsbad's Community Vision. The Community Vision embraced nine core values identified as guiding principles for Carlsbad as it plans for the future. The new General Plan was adopted in September 2015 and contains a Mobility Element that incorporates the core values of the Community Vision. Specifically, the core value of Walking, Biking, Public Transportation and Connectivity has been established to help achieve the following milestones:

- Increase travel options through enhanced walking, bicycling and public transportation systems.
- Enhance mobility through increased connectivity and intelligent transportation management.

A key goal of the Mobility Element is to create livable (or "complete") streets. This concept recognizes that the street environment is a public space and strives to ensure that this public space serves all users of the system within the urban context of that system. Implementing Policy 3-P.17 of the Mobility Element states,

"Consider innovative design and program solutions to improve the mobility, efficiency, connectivity, and safety of the transportation system. Innovative design solutions include, but are not limited to, traffic calming devices, roundabouts, traffic circles, curb extensions, separated bicycle infrastructure, pedestrian scramble intersections, high visibility pedestrian treatments and infrastructure, and traffic signal coordination."

Implementing Policy 3-P.16 further states,

"Design new streets, and explore funding opportunities for existing streets, to minimize traffic volumes and/or speed, as appropriate, within residential neighborhoods without compromising connectivity for emergency first

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responders, bicycles, and pedestrians consistent with the city's Carlsbad Active Transportation Strategies. This should be accomplished through management and implementation of livable streets strategies and such programs like the Carlsbad Residential Traffic Management Plan."

Livable streets can be promoted through a variety of means, including traffic calming, lowering vehicle speeds, enhancing pedestrian crossings, and improving bicycle facilities. Livable streets can be achieved by decreasing vehicle speeds on a roadway segment using traffic calming concepts. Lower vehicle speeds can improve vehicle, pedestrian and bicyclist safety, make walking and bicycling along a segment more comfortable, and improve crossing conditions for all users. Since the posting of speed limits by local agencies is restricted by state law, the lowering of vehicle speeds must be achieved by implementing improvements that change the physical character of the roadway in order to influence driver behavior. The Traffic and Mobility Division is looking to implement a number of projects in the near future that improve the livability of streets in residential areas. A list of these complete street projects including a tentative schedule is included in Attachment #1.

RESIDENTIAL STREETS

The Carlsbad Residential Traffic Management Program was designed specifically to address speeding on residential streets. The program defines a residential street as one that meets the residence district requirement of the California Vehicle Code and has a curb-to-curb width of 40 feet or less. The program is a three-phase process, which offer solutions at increasing levels of cost and complexity. *Phase I: Enforcement and Education* includes measures such as the installation of speed limit signs and pavement legends, the temporary deployment of speed feedback signs, and police enforcement. *Phase II: Traffic Management* features performance-based practical design using enhanced signing and striping to help reduce speeds. Due to the increased cost of implementing these types of features on multiple streets throughout the city, a qualifying criteria has been established to help prioritize staff resources and budget expenditures. The program allows Phase II to be considered on streets having a critical speed (the speed at which 85% of the vehicles surveyed are driving at or below) of 32 miles per hour or higher. Typically, speed data, including determination of critical speed, is collected during Phase I.

There are currently ten residential streets in Carlsbad that have requested Phase II features and have met the 32 mile per hour qualification criteria or have been granted an exemption into the program. The public input process for these streets will begin in early 2017. Based on the approved Carlsbad Residential Traffic Management Program, the traffic calming plans for each street will seek support from its respective neighborhood via mailed survey and each plan will be brought before the Traffic Safety

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Commission for recommendation. Design and implementation will occur after City Council approval and will be contingent upon staff and funding availability.

NON-RESIDENTIAL STREETS

Opportunities to provide traffic calming on streets that do not qualify for the Carlsbad Residential Traffic Management Program are being explored using pilot projects. These pilot projects are proposing performance-based practical design elements to help reduce speeds on roadway types such as Neighborhood Connector Streets and School Streets.

PREVIOUSLY PROGRAMMED CAPITAL IMPROVEMENT PROJECTS

The Traffic & Mobility are leading several Capital Improvement Projects that have already been approved and programmed into the CIP process. These projects are generally larger in scope and budget than the residential and non-residential projects mentioned previously.

The La Costa Avenue project comprises the implementation phase of the La Costa Avenue Improvement Plan, which was accepted by City Council on November 8, 2011 but not approved for implementation at that time. The La Costa Avenue Improvement Plan was a conceptual design that proposed traffic calming features on La Costa Avenue given the assumption that a road diet, or a reduction of the number of vehicle lanes, could be performed. A General Plan update was required to consider a road diet on La Costa Avenue, which at the time was classified as a secondary arterial. The approval of the Mobility Element of the new General Plan on September 22, 2015 allows staff to propose a road diet under certain conditions. Implementing Policy 3-P.15 states,

“Evaluate methods and transportation facility improvements to promote biking, walking, safer street crossings, and attractive streetscapes. The City Council shall have sole discretion to approve any such road diet or vehicle traffic calming improvements that would reduce vehicle capacity to or below a LOS D; this also applies to streets where the vehicle is not subject to the MMLOS standard as specified in Table 3-1.”

The cost estimate for the La Costa Avenue Improvement Plan ranged from \$1 million to \$4 million, depending on the type and number of features proposed. Due to the limited available budget, Staff is evaluating an implementation strategy and will begin the public input process for the project in 2017.

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NECESSARY CITY COUNCIL ACTION:

None

ATTACHMENT: Complete Street Project List and Schedule

Complete Streets Project Schedule

			Year 1 (FY16-17)		Year 2 (FY17-18)		Year 3 (FY18-19)		Year 4 (FY19-20)	
Complete Streets Projects	Limits	Total Cost	Design	Construction	Design	Construction	Design	Construction	Design	Construction
Programmed CIP Projects										
La Costa Avenue Improvement Plan	El Camino Real to Rancho Santa Fe Road	\$863,000			\$88,000			\$775,000		
Kelly Drive/Park Drive Complete Street	El Camino Real to Neblina Drive	\$3,765,000			\$280,000					\$3,485,000
La Costa Avenue/Camino De Los Coches Traffic Control		\$240,000			\$40,000			\$200,000		
Neighborhood Connector Streets										
Kelly Drive at Hillside Drive Traffic Circle	Kelly at Hillside	\$45,000		\$45,000						
Cassia Road Traffic Calming	El Camino Real to Poinsettia Lane	\$75,000		\$75,000						
Cadencia Street Traffic Calming	La Costa Avenue to Perdiz Street	\$115,000	\$15,000	\$100,000						
Alicante Road Traffic Calming	Citrine Drive to Alga Road	\$135,000			\$30,000	\$105,000				
Residential Traffic Calming Qualified Projects										
Daisy Avenue	Batiquitos Drive to Rose Drive	\$54,000	\$9,000			\$45,000				
Cadencia Street	Perdiz Street to Calle Conifera	\$54,000	\$9,000			\$45,000				
Corintia Street	Alga Road to El Fuerte Street	\$36,000	\$6,000			\$30,000				
Trieste Drive	Chestnut Avenue to Milano Drive	\$90,000	\$15,000			\$75,000				
Estrella de Mar Road	Alga Road to Arenal Road	\$72,000	\$12,000			\$60,000				
Basswood Drive	Monroe Street to Valley Street	\$36,000			\$6,000			\$30,000		
Amargosa Drive	Los Pinos Circle to Olivenhain Road	\$36,000			\$6,000			\$30,000		
Park Drive	Valencia Avenue to Alondra Way	\$72,000			\$12,000			\$60,000		
Hillside Drive	Kelly Drive to Neblina Drive	\$72,000			\$12,000			\$60,000		
Estrella de Mar Road	Poinsettia Lane to Olivine Court	\$54,000			\$9,000			\$45,000		
Other Complete Streets Projects										
Park Drive/Neblina Drive RRFB	Park Dr. at Neblina Dr.	\$6,360		\$6,360						
Jefferson Street Speed Feedback Signs	from I-5 to Marron Road	\$30,000		\$30,000						
Rancho Santa Fe Road Speed Feedback Signs	from Camino Junipero to La Costa Ave.	\$30,000		\$30,000						
Coastal Rail Trail Access at Tamarack Avenue	Tamarack at Coastal Rail Trail	\$40,000				\$40,000				
Bike markings	Jefferson, Laguna, Carlsbad Blvd, PAR, Cannon, Faraday	\$15,000		\$15,000						
TOTALS (NOT INCLUDING PROGRAMMED CIP PROJECTS)		\$1,067,360	\$66,000	\$301,360	\$75,000	\$400,000	\$0	\$225,000	\$0	\$0

CITY OF CARLSBAD
TRAFFIC SAFETY COORDINATING COMMITTEE
STAFF REPORT

COMMITTEE MEETING OF: January 9, 2016

ITEM NO. 6B.2

LOCATION: Carlsbad Coastal Corridor

INITIATED BY: Staff

REQUESTED ACTION: Information only

BACKGROUND:

The City of Carlsbad is working on a number of initiatives to make it easier and safer to get to the beach and travel along Carlsbad Boulevard, the old Highway 101, whether by car, on a bike or by foot. The project objectives seek opportunities to give people a better experience along the coastline, adequate parking spaces, and comfortable places to enjoy a visit to the coastline. Each of these projects is being designed in collaboration with the community to ensure we preserve Carlsbad's unique coastal character.

DATA:

Staff will present an update of recent activity related to projects along the Carlsbad Coastal Corridor.

RECOMMENDATION:

None. This item is informational only.

NECESSARY CITY COUNCIL ACTION:

None. This item is informational only.

CITY OF CARLSBAD
TRAFFIC SAFETY COORDINATING COMMITTEE
STAFF REPORT

COMMITTEE MEETING OF: January 9, 2016

ITEM NO. 6C.1

LOCATION: Citywide

INITIATED BY: Staff

REQUESTED ACTION: Support Carlsbad's current approach to striping bicycle facilities

BACKGROUND:

The City of Carlsbad currently uses thermoplastic paint for some treatments of bicycle and pedestrian facilities, such as crosswalks, shared lane markings, bike lane markings and cross-hatches on bicycle lane buffers. Ms. Judy Frankel provided comment at the October 2016 TSC meeting and requested that the city discontinue the use of thermoplastic paint in the buffer area between bike lanes and vehicular lanes. Ms. Frankel stated that the buffer area is sometimes used for intermittent bicycle travel and that the thickness of the thermoplastic causes an uncomfortable ride with certain high-pressure bicycle tires. Ms. Frankel suggested that epoxy paint had been recommended to her as an alternate to thermoplastic.

DATA:

Staff has reviewed current practice for marking the above facilities and offers these reasons for the thermoplastic use:

- Thermoplastic paint is typically limited to longitudinal crosshatch striping that is not intended for travel either by motorists or cyclists, except for special circumstances when the bike lane is blocked.
- Thermoplastic paint has a thickness ranging from 35mils to 125mils (1/32"-1/8")
- The application of cross-hatching is a time-consuming effort typically performed by a contractor as part of a larger restriping effort, such as part of pavement resurfacing.
- Thermoplastic is used primarily for its longevity. In many locations around the city, thermoplastic is known to have a lifespan of 10 years or more.
- Following initial installation by a contractor, City crews assume the responsibility for performing striping refreshes – in many locations, painted lines are refreshed on an annual basis. Thus, thermoplastic offers a distinct advantage over paint.
- Thermoplastic maintains its visibility for a much longer time over painted symbols and lines, thus providing a safer roadway for all users.
- Other cyclists have reported that they appreciated the buffer and the raised marking since it warns a motorist that they veering from the lane, and the warning that it provides to cyclists that a vehicle has veered away from their lane.
- Glass beads are added to thermoplastic for traction in wet conditions. Staff will examine options to provide an edge hatch in buffer areas if this option is consistent with FHWA and/or CA MUTCD

RESEARCH

Staff discussed and researched options with various sources:

- Caltrans
- ITE (Institute of Transportation Engineers) listserve
 - Responses from Portland, OR & Cheyenne, WY
 - Portland's research is quite extensive
- NACTO Urban Bikeway Design Guide
- Negatives:
 - Long dry time
 - Specialized equipment for application
 - Not water-borne paint, which precludes use by streets crew
 - Would need to be applied by contractor
- No compelling arguments for use of Epoxy over Thermoplastic, other than application thickness

RECOMMENDATION:

Staff is recommending continuation of the current approach to using thermoplastic paint for bicycle facilities, but will continue to monitor results by other cities involved in testing. Staff will examine opportunities to test the use of epoxy or MME through alternative contractor bids. Further, the city will pursue the potential of reducing the thickness of thermoplastic applications by contractors, and to modify buffer hatching if allowed by FHWA and/or CA MUTCD.

NECESSARY CITY COUNCIL ACTION:

None. This item is informational only.

CITY OF CARLSBAD

TRAFFIC SAFETY COMMISSION

STAFF REPORT

COMMISSION MEETING OF: January 9, 2017

ITEM NO. 6D.1

LOCATION: N/A

INITIATED BY: Doug Bilse, City Traffic Engineer

REQUESTED ACTION: Review and comment on TSC Resolution No. 2016-1.

BACKGROUND:

On April 2, 1990 the Traffic Safety Commission adopted TSC Resolution No. 90-1 that established the original procedural rules. The procedural rules have been changed by the Traffic Safety Commission on an as-need basis since originally being adopted.

DATA:

On a yearly basis, the Traffic Safety Commission reviews the procedural rules for the conduct of the Traffic Safety Commission meeting. Last year the Traffic Safety Commission approved the attached Resolution 2016-1 governing rules and procedures that was originally adopted in 1990.

Staff will prepare TSC Resolution No. 2017-1 for adoption by the Traffic Safety Commission at the February meeting based on comments received.

RECOMMENDATION:

Staff recommends a review of TSC Resolution No. 2016-1 and propose revisions to be incorporated into TSC Resolution No. 2017-1 at the February TSC meeting.

NECESSARY CITY COUNCIL ACTION:

No City Council action required for this item.

Complete Streets Project Schedule

Complete Streets Projects	Limits	Total Cost	Year 1 (FY16-17)		Year 2 (FY17-18)		Year 3 (FY18-19)		Year 4 (FY19-20)	
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